Name:

at1110paper_practice_test (v13)

1. Solve the equation.

$$7x^2 - 23x + 42 \;=\; 5x^2 - 4x - 3$$

$2x^2 - 19x + 45 = 0$

$(2x - 9)(x - 5) = 0$

$x = \frac{9}{2} \qquad x = 5$

2. Factor the expression.

$$x^2 + 9x + 20$$

$(x + 4)(x + 5)$

3. Solve the equation.

$$(8x + 9)(6x + 5) \;=\; 0$$

$x = \frac{-9}{8} \qquad x = \frac{-5}{6}$

4. Solve the equation with factoring by grouping.

$$6x^2 + 8x - 15x - 20 \;=\; 0$$

$(2x - 5)(3x + 4) = 0$

$x = \frac{5}{2} \qquad x = \frac{-4}{3}$

5. Expand the following expression into standard form.

$$(8x - 7)(8x + 7)$$

$64x^2 + 56x - 56x - 49$

$64x^2 - 49$

6. Expand the following expression into standard form.

$$(7x + 5)^2$$

$49x^2 + 35x + 35x + 25$

$49x^2 + 70x + 25$

7. Factor the expression.

$$16x^2 - 25$$

$(4x - 5)(4x + 5)$

8. Expand the following expression into standard form.

$$(5x + 6)(9x - 4)$$

$45x^2 - 20x + 54x - 24$

$45x^2 + 34x - 24$